

KMITA, Jan, doc. dr ins. (Wroclaw)

Widening of an existing road bridge. Ins i bud 21 no.8;280-
284 Ag '64.

KMETA, Jan (Wroclaw)

Transversal load distribution in cantilever plate-covered
bridges. Archiw ins lad 10 no.4:443-463 '64.

KMITA, S.

BYSTRZANOWSKA, T.; KMITA, S.

Modern view on the physiology of hearing. Polski tygod. lek. 5 no. 47-
48: 1662-1677 27 Nov 50. (CML: 20:6)

1. Of the Otolaryngological Clinic of Lodz Medical Academy (Director
Prof. H. Lewenfass).

BYSTRZANOWSKA, T.; KMITA, S.

Modern concepts of physiology of taste and smell. Polski tygod.
lek, 6 no. 37:1192-1196 10 Sept. 1951. (CLML 21:3)

1. Of the Otolaryngological Clinic (Director--Prof. Henryk
Levenfiss, M. D.) of Lodz Medical Academy.

KMITA, S.

Effect of gasoline vapors on the upper respiratory tract and on the olfactory apparatus. Med. pracy 4 no.2:119-130 1953. (QIML 24:5)

1. Of the Otolaryngological Clinic (Head--Prof. H. Levenfiss, M.D.), the Institute of Pathological Anatomy (Head--Prof. A. Prussacynski, M.D.) and the Polyclinic of Occupational Diseases (Director--Prof. E. Paluch, M. D.), Lodz Medical Academy.

KNITA, S.

Effect of gasoline on the upper respiratory tract. Med. pracy 4 no.3:
171-180 1953. (CML 24:5)

1. Of the Otolaryngological Clinic (Head--Prof. H. Levenfisz, M. D.) and
of the Institute of Pathological Anatomy (Head--Prof. A. Prussosynski,
M. D.) and of the Polyclinic of Occupational Diseases (Director--Prof.
E. Paluch, M. D.), Lodz Medical Academy.

KM: 7H
KUTKOWSKA, Helena; KMITA, Stanisław.

Complete closure of the main bronchus following thoracic injury.
Otolaryng. polska 8 no.3:229-233 1954.

1. I Kliniki Chirurgicznej Akademii Medycznej w Łodzi. Dyrektor:
prof. dr J. Stepiński.

(BRONCHI, diseases,

obstruct. in thoracic inj.)

(WOUNDS AND INJURIES,

thorax, causing complete obstruct. of main bronchus)

(THORAX, wounds and injuries,

causing complete obstruct. of main bronchus)

KNITA, Stanislaw (Lodz, Al.Kosciuski 29)

Case of cyst of the oral cavity. Otolar.polska 8 no.4:337-340 1954.

1. Ze Szpitala Wojska Polskiego w Lodzi.
(MOUTH, cysts,
case of giant cyst)
(CYSTS,
mouth, case of giant cyst)

SOKOLOWSKI, Stefan; ~~PERYAG~~, Tadeusz; ~~KUFA~~, Stanislaw

Experiments with bacteriostatic activity of self-polymerizing acrylic implants. Neur. & polska 5 no.3:253-258 My-Je '55.

1. Z Wojakowego Szpitala Klinicznego w Lodzi, Lods, Wiersbowa 33/36

(ACRYLIC RESINS

self-polymerizing implants, bacteriostatic eff.)

KMITA, Stanislaw

Surgical treatment of osena. Otolaryng. polska 9 no.2:149-152 '55.

1. Ze Szpitala Klinicznego W.P. w Łodzi Łódź, Al. Kościuski 29.
(RHINITIS, ATROPHIC, surgery
acrylic implants)

KMITA, Stanislaw; KOLBOW, Harry.

Clinical observations on action of isonicotinic acid hydrazide in laryngeal tuberculosis. Otolaryng. polska 9 no.3:227-232 1955.

**1. Z Panstwowego Sanatorium Przeciwegusliowego w Tuszyńku.
Dyrektor: dr. S. Pińko.**

**(TUBERCULOSIS, LARYNGEAL, therapy,
isoniazid)**

**(NICOTINIC ACID ISOMERS, therapeutic use,
isoniazid in laryngeal tuberc.)**

FREYTAG, Tadeusz; KNITA, Stanisław; SONDLOVSKI, Stefan

**Application of the plastic substance dentacril as tissue
implants. Polski przegl.chir. 27 no.4:323-326 Apr '55.**

**1. Ze Szpitala klinicznego W.P. w Łodzi; Szpital Kliniczny
W.P. w Łodzi.**

**(ACRYLIC RESINS
implants in dogs, histol.eff.)**

KUITA, Stanislaw; SOKOLOWSKI, Stefan; PRYTAG, Tadeusz

Studies on heat production in self-polymerizing masses
used for implants. Neur. &c. polska 6 no.1:41-44 Jan-Feb
56.

1. Z Wojskowego Szpitala Klinicznego w Lodzi, Lodz, Wiersbowa
33/36.

(ACRYLIC RESINS,
self-polymerizing, heat prod. in prep. for implants.
(Pol))

HADZIMINSKI, Aleksander; KNITA, Stanislaw

~~Intracranial complications during otitis media in infants.~~ *Pediat. polska*
32 no.3:237-244 Mar 57.

1. Z I Kliniki Chorob Dzieci A. M. w Lodzi Kierownik: doc. dr med.
E. Wilkoszewski i s Kliniki Otolaryngologicznej A. M. w Lodzi Kierownik:
prof. dr med. A. Hadziminaki. Adres: Lodz, ul. Armii Czerwonej 15.
(OTITIS MEDIA, in inf. & child
caused abscess of brain (Pol))
(BRAIN, abscess
caused by otitis media in inf. (Pol))

KMITA, Stanislaw; MARKIEWICZ-BREKINSKA, Hanna

**Sinusitis in infants & young children. Otolar. polska 12 no.2:151-161
1958.**

**1. Z I Kliniki Chorob Dzieci A. M. w Lodzi Kierownik: doc. dr H. Wilkos-
zewski i ze Szpitala dla Dzieci Im. Prof. Dr St. Popowskiego Dyrektor:
dr med. Z. Pasenicka-Gundlachowa.
(SINUSITIS, in inf. & child
maxillary (Pol))**

KMITA, Stanisław; JAGMIN-KOPOZYŃSKA, Ewelina; KOTNOWSKA-BAPACKA, Wiesława;
KOSZARSKA, Janina

Surgery in a case of teratoma of the larynx in a 41-day-old infant.
Otolaryngol. polska 13 no.3/4:624-629 '59.

1. Z I Kliniki Chorob Dzieci A.M. w Łodzi. Kierownik: doc.dr med.
K. Sroczyński. Konsultant laryngolog: doc.dr med. S. Kmita.
(TERATOID TUMORS in inf.& child)
(LARYNX neopl.)

KMITA, Stanislaw; OSTROWSKA-STACHOWA, Helena

A case of nasopharyngeal tumor (lymphoepithelioma) in a 6-year-old child.
Pediat. polska 34 no.5:722-724 May 59.

1. Z I Kliniki Choroż Dzieci A.M. w Łodzi p.o. Kierownik: doc. dr med.
K. Stocznynski. Adres: Łódź, ul. Armii Czerwonej 15.

(CARCINOMA, EPIDERMOID, in inf. & child,
nasopharynx (Pol))

(NASOPHARYNX, neoplasms,
epidermoid carcinoma in child (Pol))

KMITA, Stanislaw; HEDHARSKA, Anna

Reticulosarcoma of the mediastinum. Otolar.poleka 14 no 2:259-262
'60.

1. Z I Kliniki Chorob Dzieciacych A.M. w Lodzi, Kierownik Katedry:
prof. dr med. Fr. Radlich; Kierownik I Kliniki: doc.dr med.
K. Sroczynski; Kierownik Oddz. Laryngologicznego: doc dr med.
St Kmita.

(MEDIASTINUM neopl)

(SARCOMA RETICULUM CELL in inf & child)

BRZEZINSKA, Hanna; CZAPLICKI, Brunon; KMITA, Stanislaw; KRAJ-FRANCOWA, Irena;
MALINOWSKI, Wladyslaw

Surgical changes in the mastoid in the light of preoperative
otolaryngological examinations in infants. Otolaryngologia 15 no.1:
67-71 '61.

1. Z II Kliniki Chorob Dzieci AM w Lodzi Kierownik: prof. dr
F. Redlich Z I Kliniki Chorob Dzieci AM w Lodzi Kierownik: doc. dr
K. Broczynski Z Oddzialu Otolaryngologii Dzieci przy katedrze
Chorob Dzieci AM w Lodzi Kierownik: prof. dr F. Redlich Kierownik
Oddzialu: doc. dr S. Kmita.

(MASTOIDITIS in inf & child) (INFANT NEWBORN dis)

KMITA, Stanislaw; JANKOWSKI, Jan

Endotracheal anesthesia in tonsillar surgery in children. Otolaryng.
pol. 16 no.3:531-536 '62.

1. Z Oddziału Otolaryngologii Dziecięcej przy Katedrze Pediatrii AM
w Łodzi Kierownik Katedry: prof. dr med. F. Redlich Kierownik
Oddziału: doc. dr med. S. Kmita.
(ANESTHESIA INTRATRACHEAL) (TONSILLECTOMY)

KMITA, Stanislaw; FILIPIAK-MIASTOWSKA, Irmina; WOZNIAK, Zdzislaw.

Radiodiagnosis of inflammatory aural changes in children.
Otolaryng. pol. 17 no.4:487-490 '63.

1. Z Oddzialu Otolaryngologii Dzieciacej AM przy II Klinice
Chorob Dzieci w Lodzi. Kierownik: doc.dr.med. S.Kmita.

KMITA, Stanislaw

The problem of pediatric otitis. Otolaryng.pol. 17 no.4:
374-376 '63.

1. Z Oddziału Otolaryngologii Dziecięcej przy II Klinice
Chorob Dzieci Akademii Medycznej w Łodzi. Kierownik Oddziału:
doc.dr.med.S.Kmita.

KMITA, Stanislaw, doc. dr.

Studies on the arterial vascularization of the tympanic cavity.
Otolaryng. Pol. 19 no.1:17-22 '65.

1. Z Oddziału Otolaryngologii Dziecięcej Akademii Medycznej
w Łodzi przy II Klinice Chorob Dział (Kierownik Kliniki:
prof. dr. Fr. Radlich; Kierownik Oddziału: doc. dr. St. Kmita)
i z Zakładu Anatomii Prawidłowej Akademii Medycznej w Łodzi
(Kierownik Zakładu: prof. dr. T. Wasilewski).

KMITA, Stanislaw, doc. dr. med.; JACMIN-KOPCZYNSKA, Ewelina

A case of congenital lack of incus and stapes immobilization
(Siebenmann's type). Otolaryng. Pol. 19 no.2:253-255 '65.

1. Z Oddziału Otolaryngologii Dziecięcej przy II Katedrze Chorób
Dzieci Akademii Medycznej w Łodzi (Kierownik Katedry: prof. dr.
med. F. Redlich [deceased]; Kierownik Oddziału: doc. dr. med.
S. Kmita).

KMITA, Teresa, dipl.ing. (Warsaw)

Some problems relating to the increase and measurement of
productivity. Ekola ipar 17 no.4:113-114 Ap '63.

L 29987-66 EWT(1)/EWT(m)/EWP(t)/EII IJP(o) JD
ACC NR: AF6012491 SOURCE CODE: UR/0181/66/008/004/1239/1245

AUTHOR: Pavlichenko, V. I.; Ryshikov, I. V.; Kmita, T. G.; Karageorgiy-Alkalayev, P. M.; Leyderman, A. Yu.

ORG: none

TITLE: Electroluminescence of silicon carbide diodes

SOURCE: Fizika tverdogo tela, v. 8, No. 4, 1966, 1239-1245

TOPIC TAGS: silicon carbide, pn junction, diode junction, volt ampere characteristic, photoelectric property, electroluminescence

ABSTRACT: The authors investigated the dependence of the intensity of electroluminescence on the current and voltage in α -SiC (types 4H, 6H, and 21R). The investigated junctions were prepared by separate and simultaneous diffusion of aluminum and boron in the n-type silicon carbide crystals, alloyed beforehand with nitrogen and boron. The results were a $p-n^+$ structure, with the holes injected through the p-n junctions and the electrons through the n-n⁺ contact. The theory of the current dependence of the recombination-radiation intensity in a p-n-n⁺ diode is briefly developed. The lux-ampere and volt-ampere characteristics of the various diodes were measured as functions of the current and voltage on the diode.

Card 1/2

32-12-45/71

AUTHORS: Knito, A.A.; Ledekhovich, A.A.

TITLE: Improved Condensation Hydrometer (Usovershenstvovanny kondensatsionnyy gigrimetr).

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol. 23, Nr 12, pp. 1505-1506 (USSR)

ABSTRACT: An apparatus suggested in 1954 and built in 1955 was further improved. In its latest finish, which is described here, it consists of two half-round semiconductor elements, which are pasted together, so that they form a cylindrical body. The semiconductor layers of each element have a thickness of 10 mm and are connected with one another by intermediate copper layers of 2 mm thickness. The lower semiconductor plates are fastened immediately to the radiator below them, the domed form of which warrants a good contact with the air, so that the lower layers of the element have the same temperature as their surroundings. The upper (cooling) semiconductor layer is provided with a metal mirror to which a thermometer is fastened. In about 40 minutes after the current has been turned on, a temperature difference between the upper (cooling) and the lower (warm) layer of about 50° occurs, which results in a difference of 30-33° on the mirror and in the surrounding air. This difference is reduced as soon

Card 1/2

Improved Condensation Hydrometer

32-12-45/71

as the surrounding air is set in motion and blows upon the mirror. For the purpose of measuring moisture in a rational manner a motion of air of 2 m/sec is considered to be the most suited. Feeding current into the apparatus is carried out according to the following scheme: the current is conducted to a synchronous vibration transformer and is then led through an exciter contact to the reduction transformer. From here the current is conducted by way of a resistance (rheostat) to the semiconductor element (cooler). Behind the semiconductor element a switch with a relay is switched into the current. For the automatic control of the hydrometer mirror a photoelement of the "OU.B-51" type is used here, which works according to the principle of the "dark field", i.e. that, if the mirror is clear, the light, which is reflected from the lamp, falls beside the photoelement. At the moment in which condensate is formed on the mirror, light dispersion sets in, and the light falling upon the photoelement causes a change of the equilibrium of the magnetic field of the photoelement, which is indicated by the microammeter provided for this purpose. There are 3 figures and 3 Slavic references.

AVAILABLE: Library of Congress

Card 2/2 1. Hydrometers-Improvement

MITO, A. A.; LINDKHOVICH, A. A.

A laboratory condensation hygrometer. Lav. lab. 21 no. 4; 497-498
'55. (Hygrometry) (MIRA 8:6)

32-3-18/52

AUTHORS: Kmito, Ye. I., Kmito, A. A.

TITLE: The Determination of the Electric Conductivity of Oxide Coatings on Aluminum in a Moist Atmosphere (Opredeleniye elektroprovodnosti okisnykh plenok na alyumini v vlaznoy atmosfere)

PERIODICALS: Zavodskaya Laboratoriya, 1956, Vol. 2h, Nr 3, pp. 303-306 (USSR)

ABSTRACT: Three methods are suggested for the above mentioned determination; the measuring range being large, the first method is employed for rather rough estimates, whereas the second gives accurate results in the case of lower, and the third in the case of higher values of moisture. Investigation samples of duraluminum were cylindrical in shape, their surface was previously treated anodically in order to obtain a layer of oxide. According to the first method a nickel wire serves as an anode and is connected to a series of piles (batteries). The resistance which is produced in this way and is influenced by the oxide layer and by the moisture, is measured by way of resistance regulators and microammeters at a voltage of

Card 1/2

The Determination of the Electric Conductivity of
Oxide Coatings on Aluminum in a Moist Atmosphere

32-3-18/52

7.5 V (measuring accuracy about $\pm 15\%$). The second method is based upon a sort of tube ohmmeter working with an electron tube 2A71T and an accuracy of up to $\pm 1\%$. In the third method a radio-transmitter is used and, in accordance with resistance, higher or lower sounds are emitted. A hysteresis effect, which was noticed with an increase and decrease of moisture is explained by electrode polarization. There are 3 figures, 1 table, and 1 reference, 1 of which is Slavic.

AVAILABLE: Library of Congress

1. Duraluminum-Oxidation-Methods.
2. Oxide coatings-Conductivity-Atmosphere-Effects

Card 2/2

ACC NR. AM6013718

Monograph

UR/

Knito, Aleksandr Aleksandrovich

30
B+1

Exploration methods of the atmosphere with the use of rockets and satellites (Metody issledovaniya atmosfery s ispol'zovaniyem raket i sputnikov) Leningrad, Gidrometeoizdat, 1966. 365 p. illus., biblio. 1650 copies printed

TOPIC TAGS: ¹²rocket meteorology, ¹²satellite meteorology, meteorological instrument, upper atmosphere, cloud cover, atmosphere

PURPOSE AND COVERAGE: This book, intended for advanced students and scientific workers in meteorology, geophysics, and the aerospace sciences, presents the physical principles upon which instrumentation used to investigate the upper atmosphere are based. Particular attention is given to meteorological instruments used on geophysical rockets and satellites. The work is based on 380 Soviet and non-Soviet sources and treats instrumentation and techniques applied both within and outside the Soviet Union. G. M. Zabrodskiy, N. P. Pavlov, N. A. Petrov, and A. A. Pokhunkov participated in the compilation of the work.

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SUB CODE: 04/ SUBM DATE: 24Dec65/ ORIG REF: 272/ OTH REF: 108

Cord 3/3: FW

USSR/Chemistry - Isomeric Ketols, Isomeric

Jul 49

"Research in the Field of Isomeric Conversions of Alpha-Ketols: VII, Effect of Chlorine in the Para-Position on the Stability of Aliphatic-Aromatic Alpha-Ketols. Methyl-n-Chlorobenzoylcarbinol (I)," T. I. Temnikova, Ye. I. Kulachkova, Chair of Structure of Org Compounds, Leningrad Ord of Lenin State U imeni A. A. Zhdanov, 101 pp

"Zhur Obsheh Khim" Vol XIX, No 7

I and n-chlorophenylacetylcarbinol are produced by reaction of alpha-bromoethyl-n-chlorophenyl-ketone with potassium formate in a medium of methyl alcohol. When these two ketoalcohols are subsequently heated at 100°C, pure I is resulting product since other ketoalcohol is subjected to isomeric conversion in re-esterification stage. Interaction of alpha-bromoethyl-n-chlorophenylcarbinol with potassium acetate forms only one ester, corresponding in structure to original ketone. Submitted 7 May 48.

PA 2/5CT52

KULACHKOVA - AMULI, YE. I.

Chemical Abst.
Vol. 48 No. 5
Mar. 10, 1954
Organic Chemistry

(3)
Molecular rearrangements of α -alkoxy alcohols. II.
Molecular rearrangements in methoxy derivatives of α -
alkoxy alcohols. T. I. Temnikova and E. I. Kulachkova-
Kmita (Zhdanov Leningrad State Univ.). J. Gen. Chem.
U.S.S.R. 22, 1428-7(1952)(Engl. translation). See C.A.
47, 4857d. H. L. H.

AK
7-25-54

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AUTHORS: Kmito, Ye.I.. Kmito, A.A.

32-3-18/52

TITLE:

The Determination of the Electric Conductivity of Oxide Coatings on Aluminum in a Moist Atmosphere (Opredeleniye elektroprovodnosti okisnykh plenok na alyuminii vo vlashnoy atmosfere)

PERIODICAL:

Zavodskaya Laboratoriya. 1958, Vol. 24, Nr 3, pp. 303-306 (USSR)

ABSTRACT:

Three methods are suggested for the above mentioned determination; the measuring range being large, the first method is employed for rather rough estimates, whereas the second gives accurate results in the case of lower, and the third in the case of higher values of moisture. Investigation samples of duraluminum were cylindrical in shape, their surface was previously treated anodically in order to obtain a layer of oxide. According to the first method a nickel wire is wound round the sample (which acts as a cathode); this wire serves as an anode and is connected to a series of piles (batteries). The resistance which is produced in this way and is influenced by the oxide layer and by the moisture, is measured by way of resistance regulators and microammeters at a voltage of

Card 1/2

KMITOVENKO, A.G., dotsent; RUSSEIY, I.I., dotsent; NOVICHKOV, S.I., inzh.

Determination of the most advantageous dimensions of a pit area
in relation to the number of drawing trenches. *Izv. vys. ucheb.*
sav.; gor. zhur. 5 no.10:11-17 '62. (MIRA 15:11)

1. Sverdlovskiy gornyy institut imeni V.V.Vakhrusheva.
Rekomendovana kafedroy otkrytykh gornykh rabot.
(Strip mining)

KMITOVENKO, A.F., detainee

Effect of loading and unloading centers on belt conveyor
performance and use. Izv. vys. ucheb. zav.; gor. shur.
no. 11:51-60 '60. (MIRA 13:12)

1. Sverdlovskiy gornyy institut imeni V.V. Vakhrushcheva.
Rekomendovana kafedroy otkrytykh gornykh rabot Sverdlovskogo
gornogo instituta.

(Conveying machinery)

(Loading and unloading--Equipment and supplies)

DEMIN, A.M., kand. tekhn. nauk; KOKH, P.I.; CHERTKOV, V.K.; VASIL'YEV, M.V., kand. tekhn. nauk; YEFIMOV, I.P.; KOMITOVENKO, A.T., dots.; PRISKDSKIY, O.V., inzh.; DUNAYEVSKIY, Yu.N.; VOLOTKOVSKIY, S.A., doktor tekhn. nauk; KUR'YAN, A.I., kand. tekhn. nauk; MAYMIN, A.I.; MIROSHNIK, A.M.; PETROV, I.P.; TURYSHEV, B.P.; SHISHKOV, A.I.; AVERBUKH, I.D., inzh.; VARSHAVSKIY, A.V.; KRYUKOV, D.K.; LUKAS, V.A.; MINEYEV, V.A.; SMIRNOV, A.A., otv. red.; LYUBIMOV, N.G., red. 1zd-va; MAKSIMOVA, V.V., tekhn. red.

[Handbook for the mechanic in a coal pit] Spravochnik mekhanika ugol'nogo kar'era. Moskva, Gosgortekhnizdat, 1961. 639 p.

(MIRA 15:12)

(Coal mining machinery—Handbooks, manuals, etc.)

KHITOVENKO, A.T., detent

Relation between boring and blasting work and the productivity
of belt conveyers. Izv. vys. ucheb. zav.; ger. shrar. no. 433-40
'61. (MIRA 14:6)

1. Sverdlovskiy gornyy institut imeni V.V.Yakhrusheva.
Rekomendovana kafedroy otkrytykh rabot Sverdlovskogo gornogo
instituta.

(Coal-handling machinery) (Blasting)

DMITRIYENKO, A. T., dotsent; RUSCHIKY, I. I., dotsent; NOVICHKOV,
S. I., inzh.

Determining the efficient dimensions of open-pit mine areas.
Izv. vys. ucheb. zav.; gor. zhur. no.9:48-58 '61.
(MIRA 15:10)

1. Sverdlovskiy gornyy institut imeni V. V. Vakhrushova.
Rekomendovana kafedroy otkrytykh rabot.

(Strip mining)

TSEBENSHCHIKOV, P.T., inzh.; KMITOVENKO, A.T., dotsent

Determination of efficient spacing for carrying off rocks which
have been sorted from coal in coal pits. Izv. vys. ucheb. zav.;
gor. zhur. 6 no.3:13-16 '63. (MIRA 16:10)

1. Sverdlovskiy gornyy institut imeni V.V.Vakhrusheva.
Rekomendovana kafedroy otkrytykh gornykh rabot.

KMITOVENKO, A.T., dotsent; YESHTOKIN, A.F., inzh.; TSIRENSHCHIKOV, P.T., inzh.;
MOLTUSEV, G.P., inzh.

Selecting an efficient variant for finishing up the mining at the
Bogoslovskiy brown coal deposit. Izv. vys. ucheb. zav.; gor. zhur.
7 no.11:8-17 '64. (MIRA 18:3)

1. Sverdlovskiy gornyy institut imeni Vekhrusheva. Rekomendovana
kafedroy otkrytykh goiz/kh rabot.

KMITOWA, K.

KMITOWA, K. Problem of diapause among insects. p. 199

Vol 2, no. 3, 1956
EKOLOGIA POLSKA, SERIA N.
SCIENCE
Warsawa, Poland

So: East European Accession vol 6, no. 3, March 1957

and
DMITSIKVICH, Ya. S.: Master Med Sci (diss) -- "The complex treatment of patients suffering from ulcers". L'viv, 1958. 12 pp (L'viv State Med Inst), 200 copies (KL, No 4, 1959, 131)

KNITSKEVICH, Ya.S.

Blood transfusion in the compound treatment of peptic ulcers. Vrach.
delo no.9:99) 8 '57. (MIRA 10:9)

1. L'vovskiy institut perelivaniya krovi i nestlozhnoy khirurgii
(nauchnyy rukovoditel' - prof. I.I.Fedorov) i Pystaya klinicheskaya
bol'nitsa Kraencarmayskogo rayona L'vova
(PEPTIC ULCER) (BLOOD--TRANSFUSION)

SIEBEROVA, R.; SVOBODA, Z.; KMOCH, J.

Contribution to the study on cured diabetes mellitus. Vnitřní
lek. 11 no.10:989-994 0 '65.

1. II. vnitřní klinika fakulty dětského lékařství Karlovy
University v Praze (prednosta prof. Dr. R. Foit, Dr.Sc).

SVOBODA, Z.; FABIAN, D.; KMOCH, J.; SIEBEROVA, R.

Chlorpropamide and tolbutamide test in the diagnosis of diabetes mellitus. Cas. lek. Cesk. 104 no.45:1235-1242 12 N '65.

1. II. interni klinika fakulty detskeho lekarstvi Karlovy University v Praze (prednosta prof. dr. R. Folt, DrSc.).

PANOS, J.; KMOCH, J.; KORYCH, B.; FABIAN, D.; KALVODOVA, D.

Appropos of the etiology and clinical aspects of atypical pneumonia. Cas.lek.cesk. 102 no.50:1371-1374 13 D'63.

1. II interni klinika fakulty detského lékařství KU v Praze; (prednosta: prof.dr. R. Foit, DrSc.) a Ustav pro lékařskou mikrobiologii a imunologii fakulty všeobecného lékařství KU v Praze. (prednosta: prof.dr. F. Patocka, DrSc.).

*

KMOCH JIRI

APPROVED FOR RELEASE: 06/19/2000 Chemical Products and Their Application. Control and Measuring Devices. Automatic Regulation

Abs Jour : Ref. Zhur. - Khimiya, No 2, 1958, No 4920

Author : Knoch Jiri, Paul Jaromir

Inst : Not Given

Title : Magnetic Level Gauge

Orig Pub : Chem. průmysl, 1957, 7, No 3, 139

Abstract : The apparatus consists of a tube of non-magnetic metal, inside of which a hollow glass float, containing iron foil, is floating on the surface of the liquid. Outside the tube, suspended from a filament, is a magnet with a level index, which

Card : 1/2

K. MOINAR, Peter, bornok

Shock protection. Vasut 14 no. 2:20-21 Ag 154.

DONICK, J.

Prevention of ocular anaphylactic reaction with antistine and novocaine. Cesk.ofth. 6 no.6:339-342 1950. (CINL 20:?)

1. Of the Eye Clinic of Masaryk University, Brno (Head--Prof. B. Slavik, M.D.).

KMONEK, J.; technická spolupráce: TOWAREK, J.

Enzymatic activity of the human lens. Cesk.ofth.17 no.2:102-106
Mr '61.

1. Oční klinika University v Brně, přednosta prof. Dr. Sc. MUDr.
Jan Vanysek, III. vnitřní klinika University v Brně, přednosta
prof. MUDr. PhDr. Jaroslav Pojer.

(ENZYMES chem)

(LENS CRYSTALLINE chem)

KMONICKY, J.

Definition of blindness. Cesk. oftal. 20 no.2:143-145 Mr'64.

1. Oční klinika lékařské fakulty UJEP v Brně; přednostai: prof.
dr. J. Vanysek, DrSc.

*

HRDLICKA, Jiri, ins., dr.; KMONICEK, Josef

Production of preboiled rice. From potravin 14 no.5:262-265
My '63.

1. Vysoka skola chemickotechnologicka, katedra chemie a skouseni
potravin, Praha (for Hrdlicka).

KMONICEK, V.

The surface steam condenser under changing operational conditions.
p. 117.
STROJNICKY SBORNIK, Prague, No. 8, 1954.

SO: Monthly List of East European Accessions, (KEAL), LC, Vol. 5, No. 6,
June 1956, Uncl.

KVONICEK, V.

Reference data for the conversion of model test results obtained on the stages of centrifugal compressors. In English. p. 163. (ACTA TECHNICA, Vol. 1, No. 3, 1956, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

Kmonicek, V.

Measurement of quantities of gas conveyed by a Flue-gas fan.
p. 193. ENERGETIKA. (Ministerstvo paliv a energetiky. Hlavní
správa elektráren) Praha. Vol. 6, no. 5, May 1956.

Source: KEAL LC VOL. 5, No. 10 Oct. 1956

KMONICEK, V.

Arrangement of heat exchangers in gas circuits. V. Kmonicek. *Strojirskí* 8, 225-23 (1956). A method for the selection of the best choice of design variables of gaseous regenerative heat exchangers is described, and an example of practical importance is given. The method replaces other more complicated methods. J. G. Tschinkel

Distri: 4E34/4E36

KMONICEK, V.

A accurate high-pressure manometer. p. 2

JERNA MECHANIKA A OPTIKA. (Ministerstvo presneho strojirenstvi a Ustav pro
vyskum optiky a jemne mechaniky) Praha, Czechoslovakia, Vol. 4, No. 1, Jan. 1959

Monthly List of East European Accessions (KEAI), LV, Vol. 8, No. 7, July 1959
Uncl.

KMONICEK, V.

Turbulent flow in conical diffusers. In German. p. 404.

ACTA TECHNICA. (Ceskoslovenska akademie ved) Praha, Czechoslovakia, Vol. 4,
no. 5, 1959.

Monthly List of East European Accessions (KEAI), LC, Vol. 8, no. 11, Nov. 1959
Uncl.

10.1500

26.2110

21268

R/008/61/000/002/006/008
D235/D304

AUTHOR: Kmonicek, V.

TITLE: Subsonic flow in conical diffusers

PERIODICAL: Studii si cersetari de mecanica aplicata, no. 2, 1961,
383 - 390

TEXT: This paper was presented at the Scientific Jubilee Session of the Institutul de mecanica aplicata "Traian Vuia" ("Traian Vuia" Institute of Applied Mechanics) of the Rumanian Academy in Bucharest from July 4 to 7, 1960. The article presents a method of calculating the development of the turbulence in a conical diffuser and the distribution of the velocity and the statical pressure in a section of the current. It also presents the determination of the energy loss of the diffuser in the case of various geometrical shapes and various inlet conditions. The geometrical parameters of the conical diffuser, shown in Fig. 1, are the radius of the inlet section, r_a , the angle of divergence, ϵ , and the ratio of the ini-
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Subsonic flow in conical diffusers

tial and final radii, $\rho_e = \frac{r_e}{r_a}$. The location of a certain section of a flow, located at a distance x from the inlet is given by the magnitude:

$$\rho = \frac{r}{r_e} = 1 + \frac{x}{r_e} \tan \theta.$$

The properties of the velocity profile, i.e. the distribution of the velocities in a certain section of the flow are expressed by ϕ , β , and ν , defined by:

$$\phi = \frac{2g}{C_m^2}; \beta = \frac{C_m}{C_{max}}; \nu = \frac{C_{max}}{C_m}. \quad (1) \quad (1)$$

in which e is the kinetic energy of the flow in a section, referred to 1 kg of the flowing material, g the gravity acceleration, and C_m the medium flow speed, corresponding to the rate of flow. The magnitude ϕ defines the energy effect of the velocities non-symme-

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Subsonic flow in conical diffusers

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trical distribution, the magnitude β the plain character of the velocity profile, and the magnitude ν the velocity gradient in the vicinity of the wall. The turbulence intensity is characterized by its medium value according to the rate of flow T_m . The magnitudes Φ , β , and ν are correlated graphically. The development of the velocity profile in the diffuser may be described by the variation of only one of the mentioned magnitudes. The value of Φ is given by

$$\Phi = \Phi' - (\Phi' - 1) \exp \left(-\frac{2000}{\rho^4 \Omega} \right), \quad (5)$$

in which Ω , characterizing the energy of the turbulent motion is given by

$$\Omega = \frac{1}{\lg 3} \left[\frac{1}{2} (\rho^2 - 1) + \left(\frac{T_{m_2}}{3,5} - 1 \right) I_1 + \left(\frac{T_{m_3}}{3,5} - 1 \right)^2 I_2 + \left(\frac{T_{m_4}}{3,5} - 1 \right)^3 I_3 \right], \quad (6)$$

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Subsonic flow in conical diffusers

The factors I_1 through I_3 have been compiled in tabulated form to facilitate the calculations. The relation (5) expresses the fact that the turbulent motions at the flow through a diffuser have the tendency to equalize the velocity profile. The values ϕ' depend on the inlet conditions and on the following magnitudes:

$$\beta_s = 0,703 + 0,0235 \log \beta_{s_0} \quad \checkmark (7) \quad (7)$$

The author then determines ϕ' for $\beta_a < \beta_k$, $\beta < \beta_k$, $\beta > \beta_k$, and $\beta_a > \beta_k$. I_1 through I_3 are determined by Eq. (6). The values of the relative losses in the diffuser are compiled in Fig. 5. This calculation method is valid in a wide field of geometrical parameters of the diffusers and of their aerodynamical inlet conditions, except for rotation. Its accuracy is sufficient for its application in engineering. The derivation of the method is found in the following papers of the author: Teoretické a experimentální objasnění jevu při podzvukovém proudění v kanálech kruhového průřezu

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Card 5/7

Z/030/62/000/001/001/001
E197/E435

AUTHOR: Kmoníček, V1, Engineer Doctor, Candidate of Science

TITLE: Accurate measurement of small temperature differences with resistance thermometers

PERIODICAL: Jemná mechanika a optika, no.1, 1962, 19-23

TEXT: The author describes a method of measuring small temperature differences by platinum resistance thermometers which will give an accuracy in the order of 0.01°C without the necessity of accurate standardization. The author rejects Beckmann thermometers and thermocouples because both need comparison with standard thermometers, the accuracy of which is nearly the same as required for the author's purpose. However, platinum thermometers can be relied upon to change their resistance accurately and the author has used a bridge with which an accuracy of 0.01°C is obtainable without the necessity of accurate calibration. The equipment consists of two resistance thermometers (Heraeus type 6011), standard resistances (tolerance 1 in 10000), decade resistance boxes (type Metra XLLk or XL6), a galvanometer (Zeiss), a battery, a milliammeter and a changeover switch and a self-made switchboard. The latter is

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Accurate measurement of small ...

made of perspex and brass strips with appropriate holes for stoppers. With the equipment the following tests can be carried out: measurement of the difference in the resistance of the leads and the arms of the bridge; measurement of difference in the resistance of both thermometers; measurement of resistance of one of the thermometers and measurements as above but with reversed polarity of the current. The purpose of the arrangement is to eliminate such errors in resistance measurement which are not due to temperature. The author then develops the mathematical analysis of the errors which may occur in temperature determination and uses the standard equation for resistance thermometers:

$$R = R_0 (1 + At + Bt^2) \quad (14)$$

in which R_0 is the resistance at 0°C ; A and B - constants; t - temperature. The thermometers used by the author had an approximate resistance R_0 of 100 ohms, the value A was approximately $3.9 \times 10^{-3}/^\circ\text{C}$ and B approximately $5.9 \times 10^{-7}/^\circ\text{C}^2$. Considering the very small difference in the parameters of the

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Accurate measurement of small ...

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E197/E435

thermometers found by the author and the technique of making an accurate comparison of the resistance of the pair of thermometers to be used at the initial temperature, the author defines a value of μ_0 as the error which would appear at a temperature of 500°C and relates all other errors to that value, obtaining

$$\mu_{\Delta t} = \frac{\Delta t}{245} \sqrt{0.001 + \frac{1}{\Delta t^2} + 0.25 \mu_0^2} \quad (31)$$

in which Δt is the temperature difference to be measured and $\mu_{\Delta t}$ the error of measurement. Assuming μ_0 as 0.2°C, all errors within a temperature difference of 20°C will be less than 0.01°C, according to the formula. In order to verify the theoretical evaluation, the author has used three platinum resistance thermometers of the type Heraeus 6011, which were calibrated by the makers in the range of 0 to 500°C with a maximum error of 0.2°C. The thermometers were paired in the three possible combinations and the change of the difference in resistance of the pair measured between 80 and 180°C at constant temperature. The test equipment consisted of a Wobser U8

Card 3/4

S/058/62/000/008/068/134
A061/A101

AUTHORS: Jůza, Jan, Kwoníček, Vladimír, Šifner, Oldřich
TITLE: Specific volume and equation of state of water in the range of
500 - 3,500 bars and 80 - 350°C
PERIODICAL: Referativnyy zhurnal, Fizika, no. 8, 1962, 7, abstract 8052
("Acta techn." (CSSR), 1961, v. 6, no. 6, 553 - 572, English;
summary in Russian)

TEXT: An experimental device for determining the specific volumes of
liquids and gases in the range of 80 - 350°C and 500 - 3,500 bars is described.
A preliminary testing has shown this device to permit measurements with the fol-
lowing limit errors: specific volume, 0.001 cm³/g, temperature, 0.2°C, and
pressure 10 bars. Results of a specific water volume determination are pre-
sented. The experimental data obtained are compared with those of other authors.
Divergences do not exceed the error limits mentioned above. An equation of state
for water and steam is suggested in conclusion, and is confronted with experi-
mental data of a number of authors. In the range investigated by the authors

Card 1/2

8/081/62/000/017/014/102
B166/B180

AUTHORS: Juna, Jan, Kmoníček, Vladimír, Šifner, Oldřich

TITLE: Specific volume and equation of state of water in the range of 80 - 350°C and 500 to 3500 bars.

PERIODICAL: Referativnyy zhurnal, Khimiya, no. 17, 1962, 39, abstract 17B250 (Acta techn. (USSR), v. 6, no. 6, 1961, 553-572 [Eng.; summary in Russian])

TEXT: The article describes equipment for measuring the specific volume of water vapor at 80 - 350°C and a pressure of 500 - 3500 bars with an accuracy of 0.001 cm³/g (spec. vol.), 0.2°C (temp.) and 10 bars (pressure). The results are tabulated. An equation of state is suggested which describes the experimental data with an accuracy of 0.2%. [Abstracter's note: Complete translation.] ✓

Card 1/1

KROSTICK, Vladimir, ins., dr., C.Sc.

Thermal problems of the new high temperature conversions
of energy. Tech praca 14 no.5:341-344 My '62.

1. Ústav pro výzkum strojů, Československá akademie věd,
Praha.

KMONICEK, Vladimir; MATRKA, Miroslav

Bromometric determination of N-methyl aniline and N-ethyl aniline. Chem prum 13 no.2:79-80 F '63.

1. Vyakusny ustav organicheskoy syntesy, Pardubice - Rybitvi.

KMONICEK, V.

PHASE I BOOK EXPLOITATION

2/6284

Jerie, Jan, ed., Engineer, Doctor, Corresponding Member of the Czechoslovak Academy of Sciences

Základní problémy ve stavbě spalovacích turbin (Basic Problems in the Construction of Gas Turbines (collection of articles)). Prague, Nakl. ČAV, 1962. 627 p. 1600 copies printed.

Sponsoring Agency: Československá akademie věd.

Ed. of Publishing House: Marie Moravcová; Tech. Ed.: František Končík.

PURPOSE: The book is intended to familiarize turbine designers with recent developments in the design of gas turbines and to present some research results which may be helpful in designing more efficient turbines.

COVERAGE: The book comprises articles by leading Czechoslovak turbine experts on thermodynamic cycles, flow research in turbine components,

burning of fuel in combustion chambers, axial compressors, and characteristics of turbines manufactured in Czechoslovakia.

Basic Problems in the Construction (Cont.)

L. Michalička (State Research Institute for Heat Engineering, Prague). The Use of Gas Turbines in Industrial Processes	77
× J. Jerie (State Research Institute for Heat Engineering, Prague). Combustion Turbines of Highest Efficiency	95
V. Knap (Institute for Machine Research, Czechoslovak Academy of Sciences, Prague). Some Heat Recovery Problems in Gas Turbine Cycles	119
L. Krejčí (Institute for Machine Research, Czechoslovak Academy of Sciences, Prague). Problems Related to a Temperature Increase in Gas Turbines	141
Z. Bayer (Institute for Machine Research, Czechoslovak Academy of Sciences, Prague). The Effects of Interstage Cooling, Reheating, and Precooling in Gas Turbine Cycles	161

Card 3/8 2/2

JUZA, Jan, ins. dr.; KRONICKI, Vladimír, ins. dr., CSc.;
SCHOVANEC, Karel, ins.

Joule-Thomson coefficient of H_2O and D_2O in the range of
1,2 - 1,8 bars and 130° - 190°C. Stroj cas 14 no.5:467-483
'63.

1. Zavody V.I. Lenina, Plzeň (for Jusa). 2. Ústav pro výzkum
strojů, Československá akademie věd, Praha (for Kronický and
Schovanec).

KMONICEK, Vladimir, ins. dr., CSe.

Effect of inserted bodies on the activity of simple conical
diffusers. Stroj cas 14 no.5:484-498 '63.

1. Ustav pro vyskum stroju, Ceskoslovenska akademie ved,
Praha.

KONICEK, V., ins. dr.; MASTOVSKY, J., ins.

Contribution to the design of membrane shock tubes.
Strojirenství 14 no.1:13-19 Ja'64.

1. Ústav pro výzkum strojů, Československá akademie věd.

KMONICEK, Vladimir, ins. dr. DrSc.; SLEPICKA, Frantisek, ins. CSc.

Thermophysical properties of gases at high temperatures and
methods of determining them. Stroj cas 16 no.2:119-121 '65.

1. Institute of Thermomechanics of the Czechoslovak Academy of
Sciences, Prague.

KMONICEK, Vladimir, ins. dr. DrSc.; MASTOVSKY, Jiri, ins.

Methods of calculating thermodynamic properties of gases at high temperatures. Stroj cas 16 no.2:121-128 '63.

1. Institute of Thermomechanics of the Czechoslovak Academy of Sciences, Prague. Submitted October 5, 1964.

KMONICEK, Vladimír, ins. dr. DrSc.

Possibility of measuring gas thermal conductivity in a shock tube. Stroj cas 16 no.2:139-148 '65.

1. Institute of Thermomechanics of the Czechoslovak Academy of Sciences, Prague. Submitted October 5, 1964.

KMONICEK, Vladimir, ins. dr. DrSc.; KOREJS, Bretislav

Some remarks on the technology of manufacturing and calibrating thin-film resistance thermometers. Stroj cas 16 no.2:240-246 '65.

1. Institute of Thermomechanics of the Czechoslovak Academy of Sciences, Prague. Submitted October 5, 1964.

L 00200-66 ENT(1)/ENP(m)/ENA(d)/PCS(k)/ENA(h)/ENA(c) NY
 ACCESSION NR: AP5013181 CZ/0041/65/000/002/0139/0148

AUTHOR: Kmonicek, Vladimir (Kmonichak, V.) (Engineer, Doctor, Doctor of sciences)

TITLE: Possibility of measuring the thermal conductivity of gases in shock tubes

SOURCE: Strojnický časopis, no. 2, 1965, 139-148

TOPIC TAGS: heat conductivity, real gas, gas property, shock tube, reflected shock wave

ABSTRACT: The article presents a theoretical analysis of the possibilities offered by a shock tube for measuring the thermal conductivity of real gases. The analysis is based on smiley's method, which involves measurement in the space behind the reflected shock wave, and in which the thermal conductivity is determined from the temperature jump at the wall of the end-plate of the tube. Particular attention is given to conditions of thermodynamic equilibrium, derivation of the energy transfer equation for a radiating and chemically reacting gas, establishment of a sufficient value for the space behind the reflected shock wave, and effect of radiation flux and errors in the measurement of thermal conductivity as determined from the temperature jump at the end-plate of the tube. It is pointed out that the space behind the shock wave is convenient for measurement, but the measurement of the

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L 00151-66 EWT(d)/EWT(m)/EWP(1)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(1)
 ACCESSION NR: AP5013192 IJP(c) JD/JG CZ/0041/63/000/002/0240/0246

AUTHOR: Kmonicek, Vladimír (Kmonichak, V.) (Engineer, Doctor of sciences);
 Korejs, Bretislav (Koreys, B.)

TITLE: Some notes on the manufacture and calibration of thin-film thermometers

SOURCE: Strojnický časopis, no. 2, 1965, 240-246

TOPIC TAGS: platinum, resistance thermometer, metal film, time measurement

ABSTRACT: A new type of sensing element for measuring rapid changes in surface temperature is described which can be used both for temperature determinations and for measuring time intervals. The element is vacuum tight, shock-resistant, and easy to assemble. Deposition of its platinum resistance film can be accomplished both chemically and by vaporization in a vacuum; experience with both of these methods of preparation is described. Chemically deposited films are preferred for time-measuring elements, while films obtained by vacuum deposition are more suitable for temperature-sensing elements. Nonstationary methods of measuring the thermophysical properties of the insulating substrate onto which the platinum layer is deposited are discussed. Knowledge of these properties is necessary for determining the heat flux entering the wall.

Card 1/2

KOSKO, R.

New bridge over the Danube at Komarom. P. 19. MUSZAKI ELET. Budapest
Vol. 9, No. 18, Dec. 1954

SOURCE: East European Accessions List (EEAL) Library of Congress
Vol. 5, No. 6, June 1956

KNCSTO, K.

KNCSTO, K. Reconstruction of the brickwork of the railroad bridge at Komárom.
p. 490.

Vcl. 5, No. 11, Nov. 1955.
MEIYEPITESTUDOMANYI SZEMLE.
TECHNOLOGY
Budapest, Hungary

So: East European Accession, Vcl. 5, No. 5, May 1956

KMOSKO, K.

KMOSKO, K. The railroad bridge over the Danube near Komarom, p. 197.

Vol. 6, No. 5, May 1956.
MELYEPITESTUD MANYI SZEMLE
TECHNOLOGY
Budapest, Hungary

So: East European Accession, Vol. 6, No. 2, Feb. 1957

KMCSKO, K.

Railroad culverts.

P. 307. (MELYEPITESTUDOMANYI SZEMLE.) (Budapest, Hungary) Vol. 7, No. 9/10,
Sept./Oct. 1957

SO: Monthly Index of East European Accession (EEAI) LC. Vol. 7, No. 5, 1958

KNOTRIK, F.

Remarks on a conference. p. 25

MUSZAKI ÉLET, No. 10, May 1955

(Muszaki és Természettudományos Egyesületek Szövetsége) Budapest

SOURCE: East European Accessions List Vol. 5, No. 1 September, 1956

KMUZOVA, S.I.

Study of the nematodes of oats in the Bashkir A.S.S.R.
Trudy Gel'm. lab. 16:42-43 '65.

Nematodes of spring wheat in the Bashkir A.S.S.R.
Ibid.:44-46

(MIRA 19:2)

KNAB, O.D.

Q-2

USSR/Electricity - Dielectrics

Abs Jour : Ref Zhur - Fizika, No 1, 1958, 1235

Author : Knab, O.D.

Inst :

Title :

Emission of Electrons by Irradiated and Mechanically-Worked Dielectrics.

Orig Pub : Pratsi Odes'k, un-tu, Tr. Odessk. un-ta, 1956, 146, 36,
stud. robit, Sb. stud. rabot, No 4, 157-159

Abstract : A study is made of the emission of electrons upon pulverizing and exposure of Rochelle salt, corundum, pyrite, and quartz to ultraviolet light. Attempts are made to explain the observed phenomena.

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8/112/60/000/006/002/032

9.2180

Translation from: Referativnyy zhurnal, Elektrotehnika, 1960, No. 6, p. 12,
1.1519

AUTHOR: Knab, O. D.

TITLE: To the Problem of Electric Breakdown of Crystalline Dielectrics

PERIODICAL: Tr. Odessk. un-ta, Sb. molodykh uchenykh un-ta, 1958, Vol. 148,
No. 3, pp. 63-65 (Ukrainian)

TEXT: A possibility of breakdown of crystalline dielectrics as a result of the origination of mechanical forces under the action of an electric field is discussed. In places of crystal lattice distortions or in the presence of defects, microscopic cracks can form in a crystal under the action of an electric field. The side walls of the cracks become electron suppliers. These electrons are accelerated by the field to the values of energy necessary for a "shock breakdown". The author objects to the theory of cumulative ionization of V. A. Chuyenkov, since an electron must pass without collisions 10^5 - 10^7 of lattice constants at a field of ~ 1 Mv/sec to attain the energy necessary to release an atom or ion from a lattice node. The emergence of an electron with such an energy is impossible owing to high ionization expenses. There are 6 references.

Card 1/1

A. A. V.

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24(2), 24(3), 24(4) 24.7.00

AUTHOR: Knab, O.D.

TITLE: Exoelectronic Emission²¹ of Some Dielectrics

PERIODICAL: Nauchnyye doklady vysshey shkoly. Fiziko-matematicheskiye nauki,
1959, Nr 1, pp 179-184 (USSR)

ABSTRACT: The author reports on the experimental investigation of the exoelectronic emission of dielectrics after a mechanic treatment, radiation, and electric discharge. It is stated that during a mechanical treatment the dielectrics emit electrons, where the intensity of the radiation depends on the degree of the treatment (splitting). Crystals which already have "radiated" show a secondary exoelectronic emission after an radiation with ultraviolet light or X-rays. The same effect is caused by an electrical discharge. The course of the emission is equal in all cases. For a repeated radiation the emission maximum becomes smaller, i.e. there appears an aging of the samples. Finally it is tried to interpret the observed phenomena.

The author thanks Docent T. Ya. Bere for guidance and

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27260

S/181/61/003/008/010/034
B102/B202

24.3500 (1137, 1138)

AUTHOR:

Knab, O. D.

TITLE:

Exoelectron emission of colored crystals

PERIODICAL: Fizika tverdogo tela, v. 3, no. 8, 1961, 2293 - 2297

TEXT: In the present paper the author presents results obtained when studying the thermal exoelectron emission, the thermoluminescence, and the temperature dependence of the conductivity of colored quartz. If crystals emitting electrons at a given temperature are further heated, this electron emission shows maxima at temperatures which are considerably lower than the temperature of thermionic emission. This thermionic emission is especially high in crystals colored by X-irradiation. If thermoluminescence and thermionic emission in such crystals are studied simultaneously, conclusions on electron emission can be drawn from the results obtained. According to the most recent theory, exoelectron emission can be regarded as a thermionic emission from traps. This concept, however, is not generally accepted since in some cases the electron surface states play a certain part. The studies described here were made

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Exoelectron emission of...

in quartz powder which had been colored by X-irradiation at room temperature (6 hr, 30-kv, 10-ma X-ray tube, Cu anticathode). All samples were heated at a rate of 0.1 deg/sec. The following experimental results were obtained: experiments concerning the thermal excitation of quartz were made in single crystals; the samples showed two distinct maxima in the ranges 150 - 200 and 250 - 300°C which is in good agreement with results obtained by other authors. The thermoluminescence of the powder was less intense. The temperature dependence of thermionic emission shows a much more complicated course than that of thermoluminescence. At 170°C a distinct peak is observed which coincides with thermoluminescence but is somewhat higher. A second peak lies at 270°C. In general, the peaks of exoelectron emission and thermoluminescence do not coincide but are shifted by 10 - 100 with respect to each other. A study of the temperature dependence of the conductivity of quartz powder showed that conductivity increased by orders of magnitude with temperature. Comparative measurements of the temperature dependence of the conductivity of X-ray excited quartz plates showed only an inconsiderable effect as compared with that in powder. The results showed that the peaks of electron emission are due to processes that are connected with the

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Exoelectron emission of...

ionization of trapping centers in the interior of the crystal. Besides these electron emission sources there exists still a considerable amount of surface and surface-near traps which - as was shown by the measurements of thermal conductivity of quartz - are filled with electrons and may largely contribute to exoelectron emission. This proves that exoelectron emission is due not only to volume but also to surface processes. Finally, the author thanks Docent T. Ya. Sere for discussions and B. I. Soldatov for carrying out the measurements. There are 3 figures and 17 references: 13 Soviet-bloc and 4 non-Soviet-bloc.

ASSOCIATION: Odesskiy gosudarstvennyy universitet im. I. I. Mechnikova
(Odessa State University imeni I. I. Mechnikov)

SUBMITTED: February 23, 1961

Card 3/3

KNAB, O.D.

Exciselectronic emission of colored crystals. Fis. tvar.
tela 3 no.8:2293-2297 Ag '61. (MIRA 14:8)

1. Odesskiy gosudarstvennyy universitet im. I.I.Mechnikova.
(Electrons--Emission)
(Color centers)

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AUTHOR: Knab, O. D.

TITLE: The stimulated photoeffect of some dielectrics and its connection with the afteremission effect

PERIODICAL: Fizika tverdogo tela, v. 4, no. 8, 1962, 2193-2200

TEXT: The author studies the dependence of the photoeffect on the period of time after stimulation (coloring, crushing) and its relation to the afteremission in greater detail than has been done up to now. His measurements were made on crushed crystals of natural CaF_2 , CaCO_3 and SiO_2 giving rather intense emission after irradiation by white light (3w). Pre-illumination with blue light caused coloring and raised the activity most strongly of CaF_2 , least of CaCO_3 . The photoeffect of all crystals was stimulated by crushing and covered a wide spectral range. The spectral distribution of the stimulated photoeffect, e. g. of CaF_2 , ranged from about 300 to 950 mμ with a high intensity peak at about 400 mμ.

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The stimulated photoeffect of some ...

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treatment is discussed; this mechanism can be single- or multi-staged. Stimulated photoeffect and afteremission depend in each case on the presence of color centers. There are 5 figures.

ASSOCIATION: Odesskiy gosudarstvennyy universitet im. I. I. Mechnikova
(Odessa State University imeni I. I. Mechnikov)

SUBMITTED: March 27, 1962

Card 3/3

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KNAB, O.D.

Stimulated photoeffect from certain dielectrics and its
relation to the phenomenon of exoelectronic emission.
Fiz. tver. tela 4 no.8:2193-2200 Ag '62. (MIRA 15:11)

1. Odeskiy gosudarstvennyy universitet imeni I.I. Mechnikova.
(Photoelectricity) (Electrons—Emission)